# 2.0 Public and Agency Review of the Draft Environmental Impact Statement – Process and Results

Section 2.1 documents the process DOE used to solicit public and agency comments on the draft EIS and shows the number and types of comment documents received, Section 2.2 summarizes key issues identified in the comment documents, and Section 2.3 identifies major changes made in the final EIS in response to comments received on the draft EIS.

## 2.1 Overview of Review Process

The 90-day comment period on the draft EIS began with the issuance of the Environmental Protection Agency's (EPA's) Notice of Availability on November 12, 2004 (69 Fed. Reg. 65427 (2004)), and ended on February 18, 2005. All comments received were considered and addressed by DOE, including comments submitted after the public comment period officially ended. DOE also issued a Notice of Availability of the EIS on December 3, 2004 (69 Fed. Reg. 70256 (2004)). Copies of the draft EIS were distributed to members of Congress; to federal, state, and Indian tribal agencies and governments; to local officials; and to persons and organizations who expressed an interest in the EIS. The draft EIS was made available electronically on the DOE Grand Junction Office website and on the DOE NEPA website. Copies of the draft EIS were also placed in the Grand County Public Library, the Blanding Branch Library, the White Mesa Ute Administrative Building, and the DOE Public Reading Room in Grand Junction, Colorado.

During the public comment period, DOE held four public hearings in Utah to present information and receive oral and written comments on the draft EIS. These meetings were held in Green River (January 25, 2005), 7 attendees; Moab (January 26, 2005), 93 attendees; White Mesa (January 27, 2005), 21 attendees; and Blanding (January 27, 2005), 19 attendees. Information about the meetings was published in DOE's Notice of Availability in the *Federal Register* and in local Utah newspapers.

DOE received approximately 1,600 comment documents on the draft EIS. Comment documents were submitted by electronic mail (e-mail), voice mail, facsimile, and regular mail. Oral comments given at the public hearings were transcribed and entered into a relational database. Most comment documents were brief, raising a single issue pertaining to the draft EIS. Other comment documents were lengthy, raising multiple issues; in these cases, individual comments were extracted and a separate response was prepared for each comment.

All comment documents and their responses were tracked in the relational database. Table 2−1 shows the number of comment documents received, broken out by type of submittal.

*Table 2–1. Number of Comment Documents Received*

| Type of Submittal | Number |
|---|---|
| Orally at Public Hearings | |
| Moab | 30 |
| White Mesa | 13 |
| Green River | 4 |
| Blanding | 2 |
| E-mail | 1,289 |
| Voice Mail | 146 |
| Fax and U.S. Mail | 103 |

## 2.2 Major Issues Raised in Comment Documents

DOE analyzed all comment documents to identify the major issues raised in them. About 90 percent of the approximately 1,600 comment documents shared a common sentiment: *the tailings pile should be moved from its present location adjacent to the Colorado River.* The many comment documents supporting relocation included a wide range of reasons for doing so. Among the comments that strongly supported moving the pile "somewhere," many were equally adamant about where the pile should not be moved—specifically, that it should not be moved to the White Mesa Mill alternative location. However, a few comment documents did support relocation to White Mesa Mill, especially by slurry pipeline. This section summarizes the thirteen major issues raised in the comment documents and gives a synopsis of DOE's response or position.

### *2.2.1 Catastrophic Failure. The pile should be relocated because a major earthquake or 500-year flood could result in a catastrophic failure of the pile.*

Many comments expressed concern that a catastrophic failure of the pile caused by an earthquake or a 500-year flood could spill the contents of the pile into the Colorado River and thereby pose an unacceptable downstream risk to human health, the environment, and the recreational use and value of the river.

DOE does not agree that seismic issues are a significant concern at the Moab site. The seismic characteristics of the Moab site are addressed in Section 3.1.1.4 of the EIS. In the vicinity of the site, the Moab Fault consists of two branches—the main Moab Fault and the west branch of the Moab Fault. No historical macroseismicity has been noted along the Moab Fault, and microseismicity studies have not revealed any earthquakes associated with the fault. The site area is in Uniform Building Code 1, indicating lowest potential for earthquake damage. For geologic and geophysical reasons, the Moab Fault system is not a capable fault and does not pose a significant earthquake or surface-rupture threat to the present tailings pile.

The EIS assumes that a catastrophic flood (300,000 cubic feet per second [cfs], the type of flood specified by the Nuclear Regulatory Commission [NRC] as a Probable Maximum Flood [PMF]) will occur no more than once in 500 years—twice during the 1,000-year regulatory period. The possibility of a catastrophic flood cannot be eliminated because part of the Moab site tailings impoundment is located within the 100-year floodplain of the Colorado River and within the floodplain of the PMF of both the Colorado River and Moab Wash. The 100-year floodplains for Moab Wash and the Colorado River occupy over one-third of the Moab site. However, during floods that exceed bankfull flow (that is, when water just begins to flow over a streambank) in the Colorado River, most of the flow and flow energy are dissipated in the Matheson Wetlands Preserve away from the tailings pile.

Section 4.1.17 in the EIS addresses impacts from a catastrophic disposal cell failure. Although the likelihood of a catastrophic event would be very small over the design life of an on-site disposal cell, this type of failure was assumed to occur in order to evaluate the potential consequences because they would differ between on-site and off-site disposal alternatives. The EIS acknowledges that if 20 to 80 percent of the tailings pile were washed into the river, it would have serious adverse impacts on riparian plant and animal life and would affect the health and

safety of residents along the river and of river guides. The flood mitigation factors described in Section 2.2.2 below for periodic, less severe flooding would also mitigate the impacts of a catastrophic flood.

***2.2.2 Flooding. The pile should be relocated because episodic flooding of the site has occurred in the past, will occur in the future, and will wash contaminants into the river.***

DOE agrees that episodic flooding of the site has occurred in the past and will occur in the future. In Section 4.1.3.1, the EIS acknowledges the potential for episodic flooding of the tailings pile under the on-site disposal alternative, such as occurred in 1984, and quantifies the impacts that could result from such inundation. The floodplain area for the Colorado River extends the length of the eastern site boundary from the river's edge to distances ranging from 500 to 1,200 feet west and is approximately 10 feet above the average river level. Based on analyses in the EIS, DOE estimates that during a 100-year flood, the water level would be 3 to 4 feet above the base of the tailings pile. These impacts include additional leaching of contaminants into the ground water and subsequent migration to the river. Very conservative model results suggest that near the bank of the Colorado River, the maximum ammonia (as nitrogen) concentration in ground water could increase by just over 2 milligrams per liter (mg/L) in approximately 10 years after a 100-year flood. However, effects of the tailings inundation would decline rapidly over a period of approximately 20 years after the flood. As required in 10 CFR 1022, "Compliance with Floodplain and Wetlands Environmental Review Requirements," a floodplain and wetlands assessment of the proposed alternative actions is provided in Appendix F of the EIS.

The on-site disposal alternative includes measures to mitigate floodwater impacts. If on-site disposal were selected, an on-site disposal cell would include side slopes armored with riprap (Section 2.1.3.1) of sufficient size to mitigate erosion from floodwaters and a barrier wall (Section 2.1.4) between the river and the capped pile to deflect river encroachment. These engineered designs would further reduce the already low probability of a catastrophic failure of the pile should river migration (see Section 2.2.3 below) begin to occur unexpectedly. The descriptions of the conceptual cell cover and barrier wall design have been expanded in the EIS (Sections 2.1.1.3 and 2.1.1.4) to state that riprap materials would be sized to withstand the maximum river forces recently identified by the U.S. Geological Survey (USGS) and that the barrier wall would be of sufficient length to deflect river encroachment. The final design specifications for the wall (including, for example, its dimensions) would be developed in a remedial action plan if the on-site alternative were selected. The estimated cost range for remediation shown in Table 2−33, item #9, of the EIS would accommodate materials consistent with the recent USGS report.

***2.2.3 River Migration. The pile should be relocated because the river is migrating toward the pile, which will exacerbate flooding.***

There are responsible opposing views on the question of whether the Colorado River is migrating toward the tailings pile, which would tend to exacerbate flooding impacts, or away from the tailings pile, which would tend to mitigate flooding impacts. A new section has been added to the EIS (Section 2.6.4) to present these opposing views on river migration (and other topics) and to summarize their technical basis and implications. DOE's view is that, although a conclusive prediction of future river movement is not possible, evidence suggests that the river is migrating, and will continue to migrate, to the south and east, away from the existing tailings pile, during

the 200- to 1,000-year regulatory performance period (see Section 2.6.4). The responsible opposing view is that the river channel has not migrated away from the Moab millsite in the past 80 years, and that there is no reason to suppose that it will start to do so in the immediate future.

The overall concern expressed by commentors is that the EIS has mischaracterized the available data and that the dynamic and often unpredictable nature of the river system, the site-specific conditions, and the inevitable migration of the river toward the site over geologic time make the on-site disposal alternative unacceptable because the potential impacts of river migration would pose unacceptable risks to local and downstream users and to ecological receptors of the Colorado River corridor.

### *2.2.4 Endangered Fish. The pile should be relocated because it is leaching contaminated ground water into the river, which poses a threat to endangered fish.*

Underlying the many comments that expressed support for relocation is the view that the on-site disposal alternative would be unable to achieve surface water quality in the Colorado River adjacent to the tailings pile that would be protective of the endangered fish species known to inhabit those waters. DOE and the Utah Department of Environmental Quality (UDEQ) have responsible opposing views regarding the ammonia surface water standard (protective criteria) for a ground water cleanup goal that was used in the EIS. The EIS has been expanded to present and discuss these views (Section 2.6.4). The basis for the ammonia surface water standard for a ground water cleanup goal is discussed in Section 2.3.1 and was developed in consultation with the U.S. Fish and Wildlife Service (USF&WS) as specified in the Endangered Species Act. The USF&WS states in its Biological Opinion (Appendix A3 of the EIS):

> "The FWS has considered all of UDEQ's comments in our analysis of the effects to listed species associated with ground water remediation and we agree that many warrant further study (see Incidental Take Statement). Based on our review of the available information, and with recognition that there are uncertainties in both DOE's and UDEQ's analyses, the Service has determined that DOE's premise that 3 milligrams per liter (mg/L) ammonia in groundwater will result in protective concentrations in all surface water habitats presents a reasonable approach to the problem."

DOE's estimates of the duration and cost of ground water remediation are predicated on the assumption that 3 mg/L ammonia in ground water will result in protective concentrations in all surface water habitats. However, new Section 2.6.4 addresses, to the extent possible, the potential implications if the DOE and USF&WS view on this issue is in error and the UDEQ position is correct. If applicable protective criteria could not be achieved or would require longer than DOE estimates, DOE recognizes that the duration of ground water remediation, especially under the on-site disposal alternative, would be substantially longer than estimated in the EIS, and that the estimated $906,000 per year cost of ground water remediation would continue beyond the currently estimated 75 to 80 years.

### *2.2.5 Subsidence. The pile should be relocated because it has no liner and will eventually come into permanent contact with ground water.*

Under the on-site disposal alternative, the pile would remain unlined. Over geologic time, the process of subsidence, which is caused by ground water dissolving the salt formations under the

tailings pile (Section 3.1.1.4 of the EIS) will eventually cause the bottom of the tailings pile to converge with the underlying ground water at an estimated rate of approximately 1.4 feet per 1,000 years. At this rate, DOE estimates that the tailings in the disposal cell would come into permanent contact with ground water in approximately 7,000 to 10,000 years, assuming the minimum depth to ground water ranges from 5 to 7 feet.

As described in Section 2.3.2 of the EIS, active ground water remediation would result in protective levels in surface water approximately 10 years after the issuance of a Record of Decision and implementation of remediation operations. Based on the analyses in the EIS, active ground water remediation could be terminated in 75 to 80 years, when ammonia concentrations in ground water reached the target goal. DOE acknowledges uncertainties in its ground water model assumptions and responsible opposing views regarding the applicable compliance standard and recognizes that these factors could result in longer active ground water remediation.

Regardless of the duration of active ground water remediation, DOE believes that under the on-site disposal alternative, protective levels in surface water could be achieved and sustained for the 200- to 1,000-year regulatory time frame despite the absence of a liner. However, DOE acknowledges that because of subsidence, under the on-site disposal alternative surface water concentrations could revert to levels that are not protective in 7,000 to 10,000 years.

### *2.2.6 Matheson Wetlands Preserve. The pile should be relocated because contamination is migrating under the river and affecting the Matheson Wetlands Preserve.*

DOE's position is that contamination is not migrating under the river and impacting the Matheson Wetlands Preserve. DOE's conceptual model of ground water flow at and near the project site considers the Colorado River and perhaps a limited area just southeast of the river to be a site of both regional and local discharge for ground water. Ground water discharges to this area because the elevation of the river surface and shallow ground water to the immediate southeast is less than the flow potentials measured in ground water at the project site, in areas lying farther to the east and closer to the city of Moab, and in brine located below the river. Accordingly, ground water flow converges toward the river from all of these zones, and a ground water divide occurs either in the river itself or slightly east of the river. This flow pattern prevents water from migrating beneath the river to the Matheson Wetlands Preserve.

However, there is a responsible opposing view of the fate and transport of site-derived contaminants in ground water. This view, which was expressed in many comments, states that these contaminants have migrated, and continue to migrate, under the Colorado River toward the Matheson Wetlands Preserve and that they pose a potential hazard to public health and the environment. This view is based primarily on the interpretation of three types of information: (1) a potentiometric surface map (water table) based on calculated hydraulic heads that account for the effects of salinity on flow potential, (2) measured uranium concentrations in ground water on both sides of the Colorado River, and (3) analysis of stable isotopes of the dissolved oxygen and hydrogen in ground water.

Both views on the question of contaminant migration under the river are based on differing interpretations of technical data. A new section on responsible opposing views (Section 2.6.4) has been added to the EIS. The section presents both views in detail and also discusses the implications of these opposing views.

***2.2.7 Uncertainties with On-site Disposal. The pile should be relocated because the numerous uncertainties, especially about long-term questions, could adversely affect the cost and reliability of on-site disposal. It is possible that on-site disposal would cost much more than DOE estimates. These uncertainties could be largely eliminated if the pile were moved to a newly constructed disposal cell with better geologic confinement.***

DOE agrees that there are numerous uncertainties and assumptions, including long-term ones, that could increase the duration of remedial action under the on-site disposal alternative and therefore could increase the lifetime cost of the on-site disposal alternative. In the EIS, DOE described each recognized area of uncertainty and the potential consequence, including cost where applicable (see Tables S−1 and 2−33 of the EIS). In addition, new Section 2.6.4 addresses areas of uncertainty about which there are responsible opposing views.

In some instances, it is not possible to quantify the potential impacts of uncertainties on cost estimates. For example, one area of uncertainty frequently cited as potentially affecting the cost of the on-site disposal alternative is the applicable compliance standard for surface water ammonia and, by extension, the length of time required for ground water treatment to achieve protective concentrations in surface water. The EIS assumes that the lower end of the range of acute criteria (3 mg/L ammonia) applies. But if the more stringent lower end of the range of chronic criteria (0.6 mg/L ammonia) applied, it could significantly extend the duration of ground water remediation. Uncertainties associated with the cost, duration, and ability to achieve protective criteria in surface water depend on multiple and potentially additive or offsetting factors. Such factors include variations in the composition of the tailings pore water, geochemical changes that occur over time, transport of contaminants to the surface water, changing regulatory criteria, and the evolving geologic configuration of the near-bank river system. Accurately quantifying the individual and collective uncertainty of these factors would be an extremely complex exercise, and the value of the results in the decision-making process would likely be disproportionate with the required effort. Consequently, DOE acknowledges in the EIS that the estimated annual cost of ground water treatment ($906,000) and the cost of disposing of the resultant residual radioactive material could extend beyond the 80 years that DOE currently estimates for the on-site disposal alternative.

Other areas of uncertainty where DOE acknowledges the potential to increase the lifetime cost of the on-site disposal alternative include the ground water and site conceptual model assumptions and the postulated, but as yet unconfirmed, presence of a salt layer in the tailings pile. These uncertainties are discussed in Table S−1 of the EIS.

Finally, there are also areas of short-term uncertainty that apply solely or primarily to off-site disposal and that could increase the estimated cost of this alternative. Examples include (1) the final mass and volume of contaminated material in, under, and adjacent to the tailings pile that would need to be excavated and transported, and (2) worker dose rates and exposure times. These uncertainties are also discussed in Table S−1 of the EIS.

### *2.2.8 Downstream Impacts. The pile should be relocated because of the potentially harmful impacts it poses to downstream recreational users, residents, and businesses.*

The public based its support for relocating the pile on a wide range of reasons, many of which reflected concerns over harmful impacts to downstream recreational users, residents, and businesses. DOE carefully considered the analyses provided in the EIS, the consequences of the uncertainties characterized in the EIS, all responsible opposing views, and the numerous public comments received on the draft EIS, including about 1,400 comment documents that supported relocating the tailings pile. Based on these considerations, in the final EIS DOE identifies off-site disposal at the Crescent Junction site using rail transportation and active ground water remediation as its preferred alternatives for the remediation of the Moab mill tailings, vicinity properties, and contaminated ground water. Section 1.4.5 further discusses the basis for DOE's identification of these preferred alternatives.

However, DOE is confident that any of the proposed actions described in the EIS would provide long-term protection of human health and the environment within the regulatory time frame of 200 to 1,000 years. Moreover, DOE emphasizes that the final decision on which alternative will ultimately be selected and implemented will be announced in the Record of Decision, which DOE expects to issue in late 2005.

DOE acknowledges the validity of the public's concerns regarding the health and well-being of downstream users and grants that these concerns factored significantly into its decision-making in identifying its preferred alternative. Nevertheless, DOE disagrees with the underlying premise that the on-site disposal alternative would not provide human health and environmental protection commensurate with, if not exceeding, the requirements of 40 CFR 192. DOE believes that the final design of either an on-site or an off-site disposal cell would meet the requirements in 40 CFR 192 and would receive full review and concurrence from the NRC. A final disposal cell design would be developed in a remedial action plan after DOE issues its Record of Decision.

### *2.2.9 Aesthetics and the Local Economy. The pile should be relocated because it is unattractive and discourages tourism in the Moab area.*

DOE agrees, and the EIS acknowledges, that the on-site disposal alternative would likely have unavoidable adverse impacts on visual resources (see Section 4.1.11.5). From key observational points, the predominantly smooth horizontal lines created by an on-site disposal cell would continue to produce a strong to moderate contrast with the adjacent sandstone cliffs. The visual contrasts that would occur under this alternative would not be compatible with the Class II objectives that the Bureau of Land Management (BLM) has assigned to the nearby landscapes. Although DOE is not required to meet the objectives of BLM's visual resource management system on the DOE-owned Moab site, the system provides a useful way to measure the effects of a proposed action on visual resources.

With regard to the potential impact on tourism, since 1995 tourism-recreation employment has grown by some 20 percent and now accounts for at least 45 percent of Grand County's total employment (see Section 3.1.18.1 of the EIS). This implies that visual impacts from the tailings pile are not significantly discouraging tourism.

### *2.2.10 Public Health and Radon Risks. The pile should be relocated because it emits radon gas and poses a public health risk.*

For each of the proposed alternative actions, human health risks, including risks from exposure to radiation expressed as latent cancer fatalities, are analyzed and compared in the EIS (see Appendix D; Sections 4.1.15, 4.2.15, 4.3.15, 4.4.15; and the Summary). DOE agrees with the basic premise that relocating the tailings pile to a new isolated location would minimize long-term public exposure to tailings-related radiation. Based on the analyses in the EIS, the greatest long-term risk to the public from radiation exposure at the Moab site, excluding vicinity property exposure, would be associated with the No Action alternative (see Figure S−17 of the EIS).

Under any of the off-site disposal alternatives, during the period of surface remediation, there would be some increased public risk stemming from the need to disturb the existing tailings pile cover and transport the tailings. This temporary increase in public exposure and risk would not occur under the on-site disposal alternative because a fortified cap would be applied without disturbing the existing cap. Contaminated vicinity property material, which may be the greatest source of public exposure to mill-related radiation, would be removed and isolated under either the on-site or off-site disposal alternative. DOE considered public exposure in identifying an off-site location as its preferred surface remediation alternative, and the Department will continue to consider public exposure in its final decision.

### *2.2.11 Land Use. The pile should be relocated to make better use of the prime location it occupies.*

Several commentors expressed opinions that seemed to be based on a belief that relocating the tailings pile would quickly free up all or most of the Moab site for other uses. DOE recognizes the strategic location and potential value of the Moab site real estate. However, DOE does not believe it is appropriate to speculate on future land uses. Even under the off-site alternative, the land area required for ground water remediation, which could exceed 40 acres, would be unavailable for an estimated 75 years. Under any of the off-site alternatives, it would be DOE's goal to have as much as possible of the 439-acre Moab site available for unrestricted use upon completion of surface remediation. However, as stated in the EIS, it is possible that even after completion of remediation, the entire 439-acre site would remain under federal control in perpetuity. Under any action alternative, final decisions on allowable future land use at the Moab site could be made only after the success of surface and ground water remediation was determined.

### *2.2.12 Cultural Impacts to Native American Communities. The pile should not be relocated to White Mesa Mill because doing so under either of the two transportation modes proposed for the White Mesa Mill alternative, truck or slurry pipeline, would seriously (and, in some cases, irreversibly) disturb many Native American cultural sites and traditional cultural properties.*

The EIS analyzed the potential adverse impacts to both cultural sites and traditional cultural properties. Traditional cultural properties can include traditional cultural practices, ceremonies, and customs. Although only the Moab site and the White Mesa Mill site have been field surveyed for cultural sites, some cultural sites would probably be adversely affected under any of the proposed action alternatives, including on-site disposal. Under any of the action alternatives, 4 to 11 cultural sites at the Moab site could be adversely affected. Under the off-site disposal

alternative, the number of additional cultural sites potentially adversely affected varies widely among the alternative locations and modes of transportation.

Because of the proximity of the Ute Mountain Ute Tribe to the White Mesa Mill site, the White Mesa Mill disposal alternative would present unique and unavoidable potential adverse impacts to at least 10 traditional cultural properties. Impacts to traditional cultural properties would be far less likely at the Klondike Flats or Crescent Junction locations. Moreover, any mitigation to traditional cultural property impacts at White Mesa Mill would be extremely difficult or impossible and would involve numerous tribal entities. DOE considered adverse impacts to the Ute Mountain Ute Tribe in its identification of Crescent Junction as its preferred disposal location and will continue to consider these impacts in its final decision.

***2.2.13 Traffic through Moab. The pile should not be relocated to White Mesa Mill by truck due to the major traffic impact on highly congested areas, especially in Moab.***

DOE agrees that relocating the tailings pile by truck to White Mesa Mill would necessitate traveling through the city of Moab on U.S. Highway 191 (US-191). As seen in Figures S−20 and 2−63 of the EIS, transporting the tailings to the White Mesa Mill site by truck would result in an estimated 127-percent increase in average annual daily truck traffic through Moab—a severe and unavoidable adverse impact. Moreover, the Utah Department of Transportation (UDOT) considers this area to be highly congested. Trucking the tailings to White Mesa Mill would also mean traveling through Monticello and Blanding.

In contrast, if the tailings were trucked to either Klondike Flats or Crescent Junction, the trucks would not have to pass through any cities or towns; however, the trucks would have to pass the entrance to Arches National Park.

## 2.3 Major Revisions to the EIS

This section lists the major revisions to the EIS. DOE made 10 major, substantive revisions and numerous minor or editorial revisions in response to comment documents received on the draft EIS. Substantive revisions to the text are marked by a sidebar in the margin. The following paragraphs summarize the 10 major revisions to the EIS and note where the revision occurs.

and their ramifications, are discussed in new Section 2.6.4 and in the Summary of the EIS.

**2.3.1** *Preferred Alternatives*. In the draft EIS, DOE did not identify a preferred alternative. In Section 1.4.5 and the Summary of the EIS, DOE identifies the combination of off-site disposal at the Crescent Junction site using rail transportation and ground water remediation at the Moab site as its preferred alternatives. DOE's bases for identifying these preferred alternatives are also discussed in Section 1.4.5 and the Summary.

**2.3.2** *Responsible Opposing Views.* Based on continuing consultations with cooperating agencies and comment documents received on the draft EIS, DOE has identified three issues about which there are responsible opposing views: (1) river migration, (2) transport of contaminated ground water beneath the Colorado River to the Matheson Wetlands Preserve, and (3) the applicable surface water and ground water compliance

standard. These opposing views, their potential ramifications, and DOE's evaluation are discussed in new Section 2.6.4 and in the Summary of the EIS.

**2.3.3** *USGS Maximum River Force Study*. The descriptions of the conceptual cell cover and barrier wall design have been expanded in Sections 2.1.1.3 and 2.1.1.4 to state that riprap materials would be sized to withstand the maximum river forces recently identified by USGS and that the barrier wall would be of sufficient length to deflect river encroachment.

**2.3.4** *USF&WS Biological Opinion*. Appendix A3, the USF&WS Biological Opinion, has been added.

**2.3.5** *Floodplain and Wetlands Statement of Findings*. A Statement of Findings to Appendix F (Floodplain and Wetlands Assessment for Remedial Action at Moab Site) has been added.

**2.3.6** *Worker Dose.* In the draft EIS, DOE applied an overly conservative assumption for identifying the source term to which workers would be exposed under the on-site disposal alternative (Section 4.1.15). This analysis has been revised.

**2.3.7** *State of Utah Regulatory Authority.* Sections 2.2.5.2 and 7.3.4 have been revised to recognize the state's regulatory authority at the White Mesa Mill / International Uranium (USA) Corporation (IUC) site.

**2.3.8** *Flood Protection at Moab Site.* Section 2.1.1.1 has been revised to state that the storm water management infrastructure at Moab site would be designed and constructed to control a reference 100-year flood rather than a 25-year flood.

**2.3.9** *10-Fold Dilution Factor.* Section 2.3.1.2 has been revised to reaffirm the appropriateness of assumed 10-fold dilution factor for ammonia as it migrates from ground water and enters surface water in the Colorado River.

**2.3.10** *Contaminants of Potential Concern.* Section 2.3.1.2 has been updated with an expanded discussion of the screening process for contaminants of potential concern.